EXHIBIT 3

Virtual Solutions, LLC's Preliminary Infringement Contentions Directed to Microsoft Corp. for United States Patent No. 6,507,353

Virtual Solutions, LLC

v.

Microsoft Corp.

Case No. 1:12-cv-01118-SAS

Patent: U.S. Patent No. 6,507,353

Asserted Claims: At this time, Virtual Solutions asserts claims 1, 2, 3, 5, 7, 8, 9 and 22.

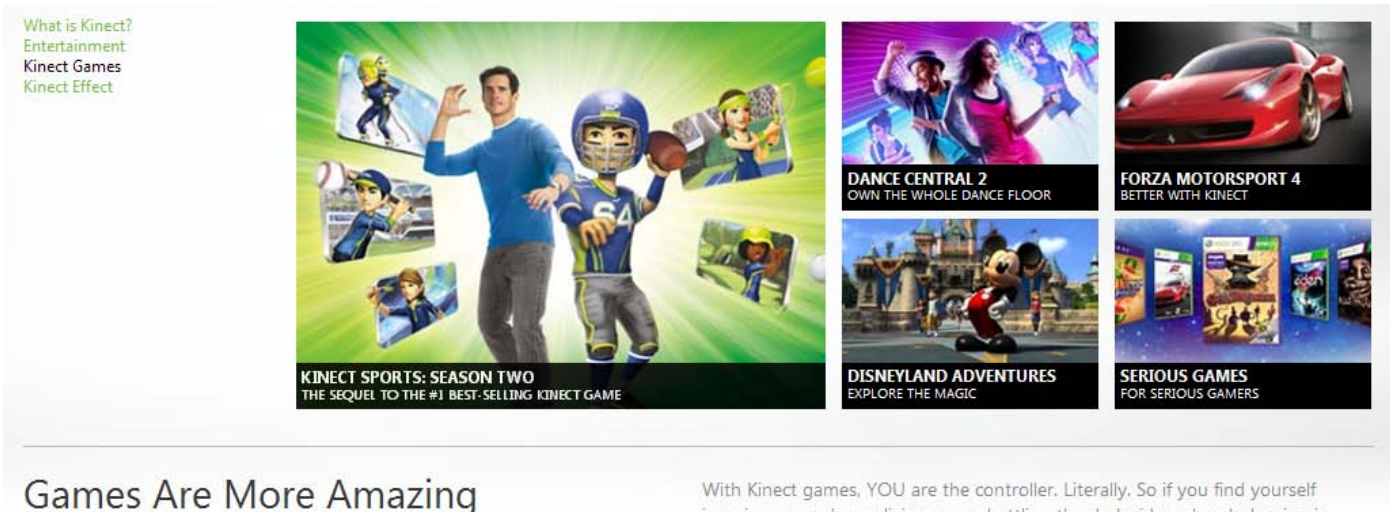
Priority Date: All claims are entitled to a priority date at least as early as December 10, 1999.

At this time Virtual Solutions' investigation in this matter is ongoing. Discovery has just begun in this matter and Microsoft has not produced any documents or technical information to date regarding the operation and functionality of the Accused Products. As a result, these Preliminary Infringement Contentions are based on publicly available information that Virtual Solutions has been able to identify to date. Virtual Solutions reserves the right to modify these contentions pending further discovery, including document production by Microsoft, and claim construction in this matter.

At this time, Virtual Solutions contends that all elements in each Asserted Claim are literally present in the Accused Products. Virtual Solutions reserves the right to modify these contentions and assert infringement under the Doctrine of Equivalents pending further discovery, including document production by Microsoft, and claim construction in this matter.

As alleged in the Complaint in this matter, Microsoft is accused of infringing the '353 patent directly and indirectly based on inducement pursuant to 35 U.S.C. s. 271(b).

Claim 1	Application of U.S. Patent No. 6,507,353 to the Accused Products
1. A method for generating a behavior vector for a virtual actor in an interactive theatre by interpreting stimuli from visitors, the method comprising:	The preamble of claim 1 is not necessary to give life, meaning and vitality to the claim. Rather, it merely states the purpose or intended use of the claimed invention. As a result, it is not a limitation. *See e.g.*, *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305-06 (Fed. Cir. 1999). To the extent the preamble of claim 1 is found to be a limitation, Microsoft Xbox with Kinect and/or Microsoft Xbox with Kinect in conjunction with Xbox Kinect games such as Kinectimals, Rise of Nightmares, Fantastic Pets, Blackwater, Just Dance 3, Star Wars, Ghost Recon Future Soldier, etc. ("the Accused Products"), performs a method for generating a behavior vector for a virtual actor in an interactive theatre by interpreting stimuli from visitors.  http://www.xbox.com/en-US/kinect

Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
1. A method for generating a behavior vector for a virtual actor in an interactive theatre by interpreting stimuli from visitors, the method comprising:	 http://www.xbox.com/en-US/Kinect/Games  http://www.xbox.com/en-US/kinect

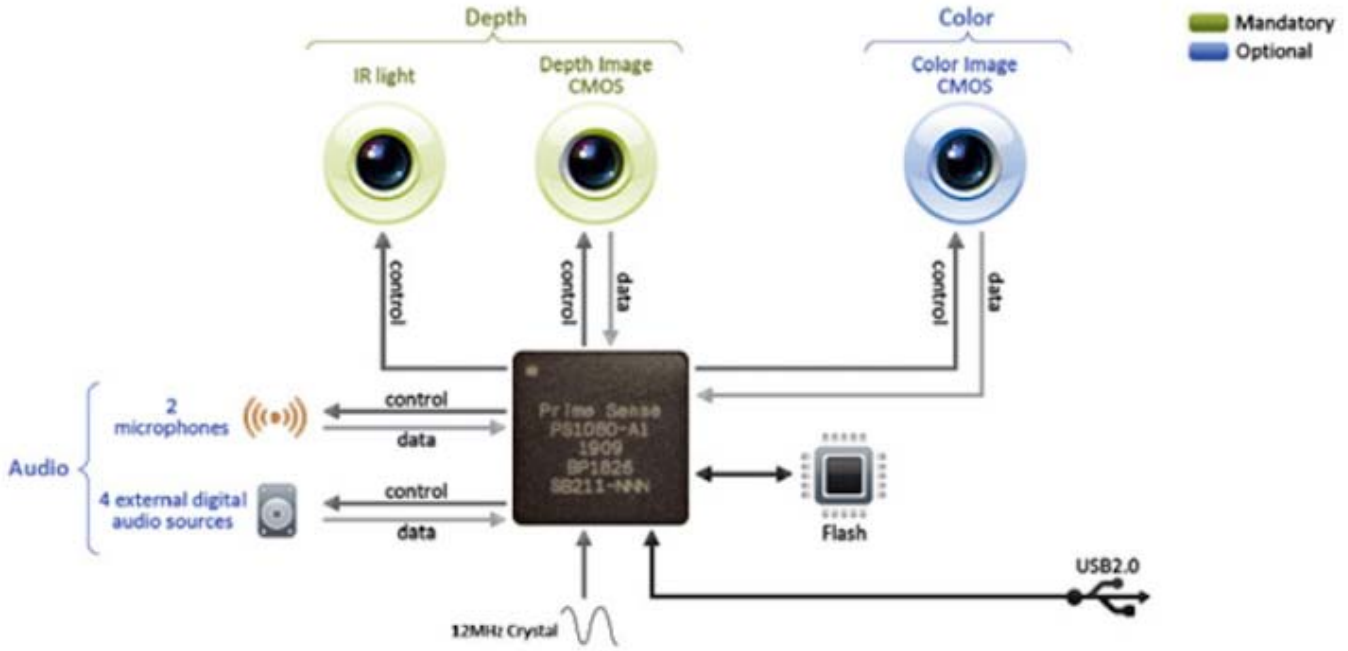
Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
1. A method for generating a behavior vector for a virtual actor in an interactive theatre by interpreting stimuli from visitors, the method comprising:	See How Kinect Technology Works MOTION SENSOR  Kinect uses a motion sensor that tracks your entire body. So when you play, it's not only about your hands and wrists. It's about all of you. Arms, legs, knees, waist, hips and so on. SKELETAL TRACKING  As you play, Kinect creates a digital skeleton of you based on depth data. So when you move left or right or jump around, the sensor will capture it and put you in the game. FACIAL RECOGNITION  Kinect ID remembers who you are by collecting physical data that's stored in your profile. So when you want to play again, Kinect will know it's you, making it easy to jump in whenever you want. VOICE RECOGNITION  Kinect uses four strategically placed microphones within the sensor to recognize and separate your voice from the other noises in the room, so you can control movies and more with your voice. http://www.xbox.com/en-US/Kinect/Kinect-Effect *See also* slides 5 through ___ herein.

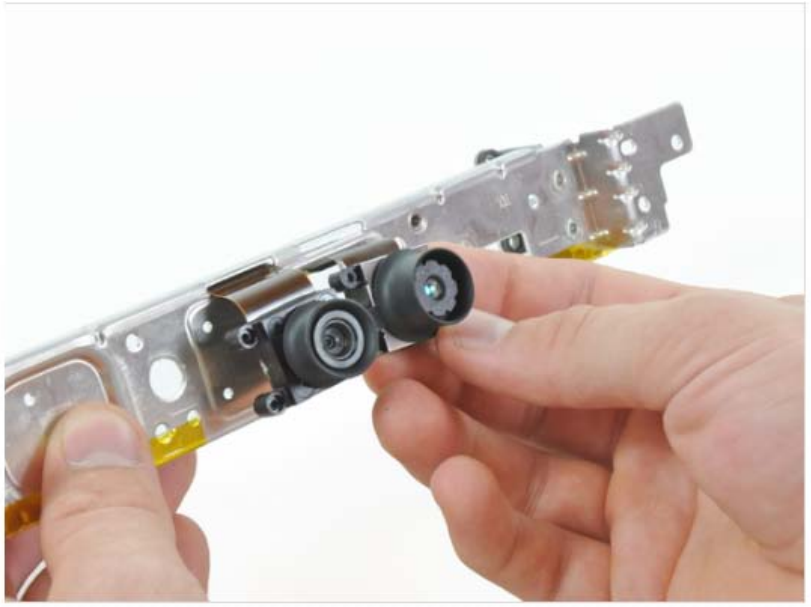
Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theatre area within which a number of visitors are free to move about, said sensors generating sensor signals;	The Accused Products provide a plurality of sensors that detect and sense at least one physical characteristic at a plurality of positions within a theatre area within which a number of visitors are free to move about. In addition, the sensors generate sensor signals. For example, the screen shot shown below and those on the next two slides show the inside of Kinect and demonstrate that Kinect contains sensors in the form of at least two cameras, an IR projector and audio sensors.

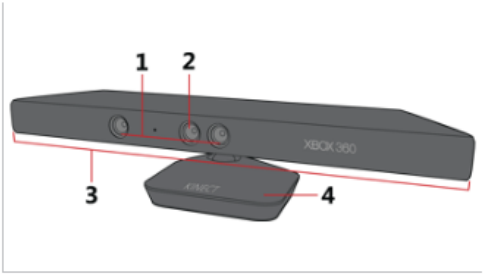
Step 10 Edit

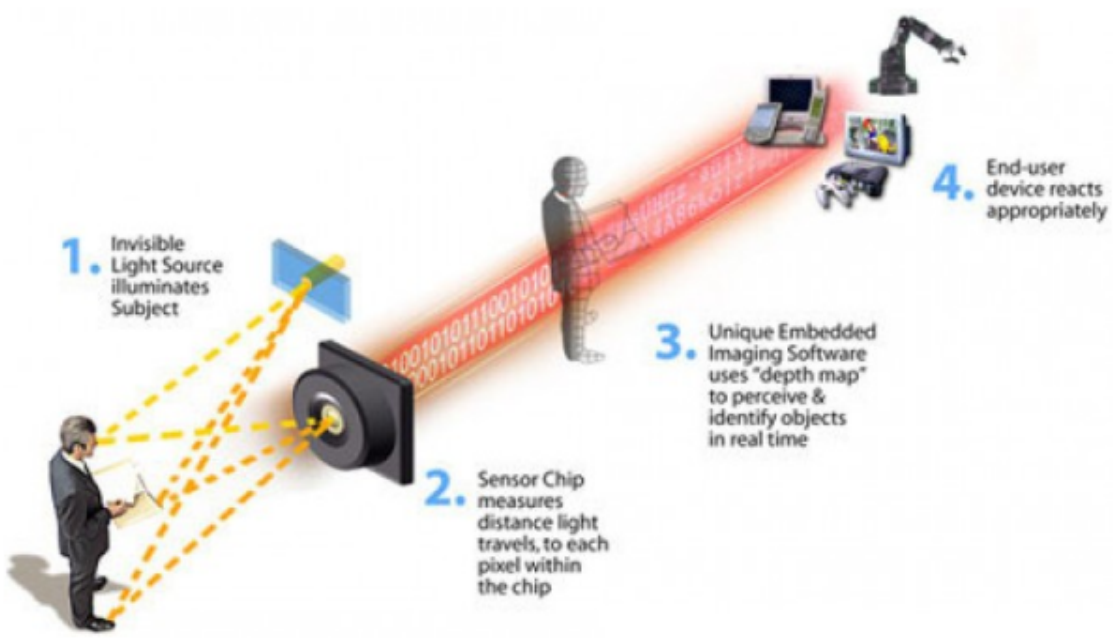
- We've finally found the Kinect's eyes.
- Two cameras and an IR projector.
  - Left: (IR CMOS) Microsoft / X853750001 / VCA379C7130
  - Center: (Color CMOS) VNA38209015
  - Right: (IR Projector) OG12 / 0956 / D306 / JG05A
- This picture is of the device upside down, so these labels are swapped from what you would see looking at the Kinect.
- These are not tiny, cell-phone cameras— they're closer to the camera you might find in a webcam, with large lenses and autofocus.
- We can't independently confirm the resolution of the cameras yet, but Microsoft claims that the infrared cam is 320x240 and the RGB cam is 640x480.

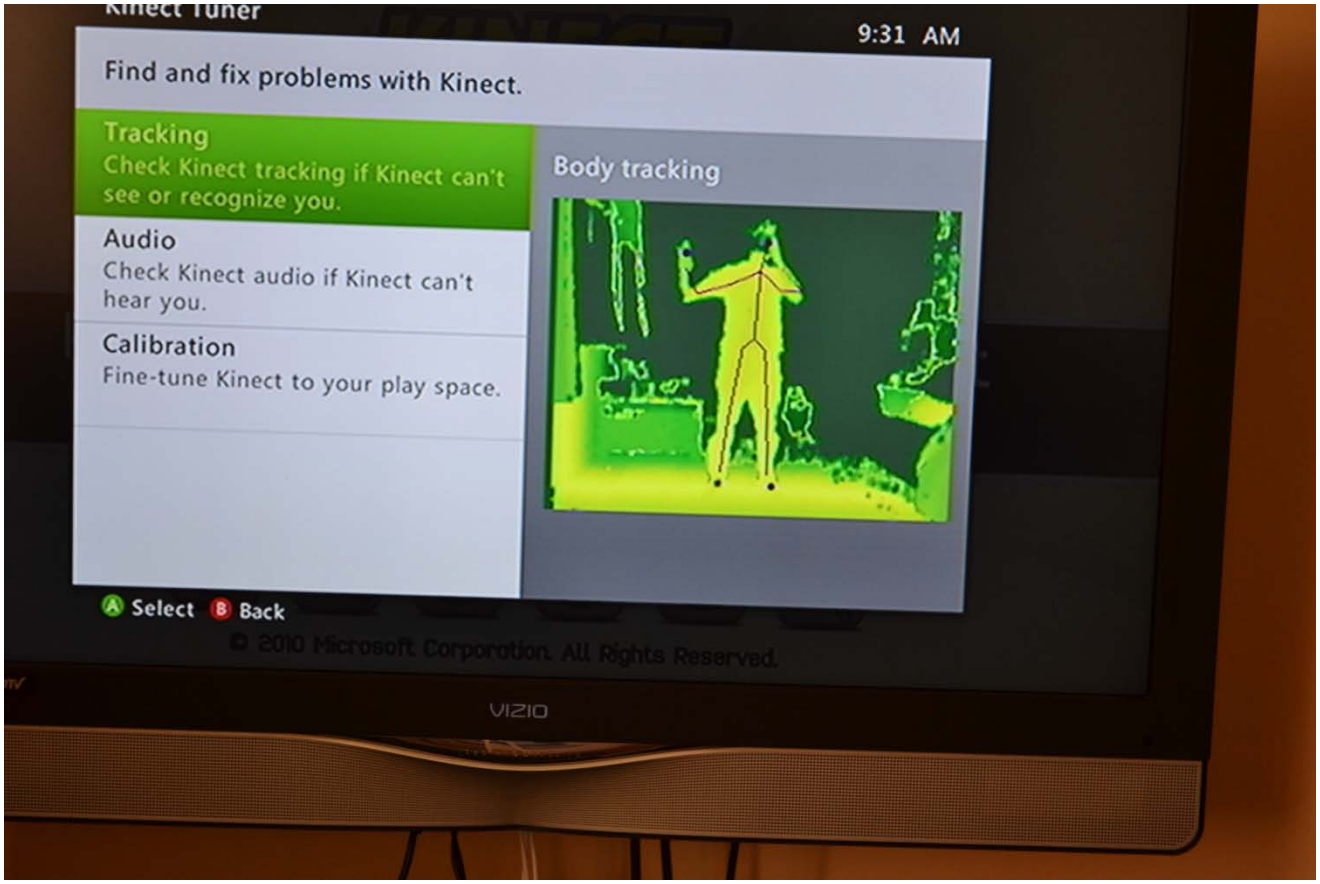
http://www.ifixit.com/Teardown/Microsoft-Kinect-Teardown/4066/1

Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theatre area within which a number of visitors are free to move about, said sensors generating sensor signals;	 http://www.ifixit.com/Teardown/Microsoft-Kinect-Teardown/4066/1

Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theatre area within which a number of visitors are free to move about, said sensors generating sensor signals;	   **Step 21** Edit ● After removing several more screws, the two cameras and the IR transmitter easily lift off the metal backing bar. ● Another component is sandwiched between the IR Projector and the metal backing bar. This is likely a Peltier Device used for cooling the IR projector.    **Step 22** Edit ● The two cameras and the IR Projector, side by side. ● By having the depth-of-field camera and the RGB camera a calculated distance apart, the Kinect is able to perform immediate, 3D incorporation of real objects into on-screen images. ● Having no form of user input other than voice commands and gestures, the crux of the Kinect's input system is the sensor system, comprised of the microphones and cameras. http://www.ifixit.com/Teardown/Microsoft-Kinect-Teardown/4066/3

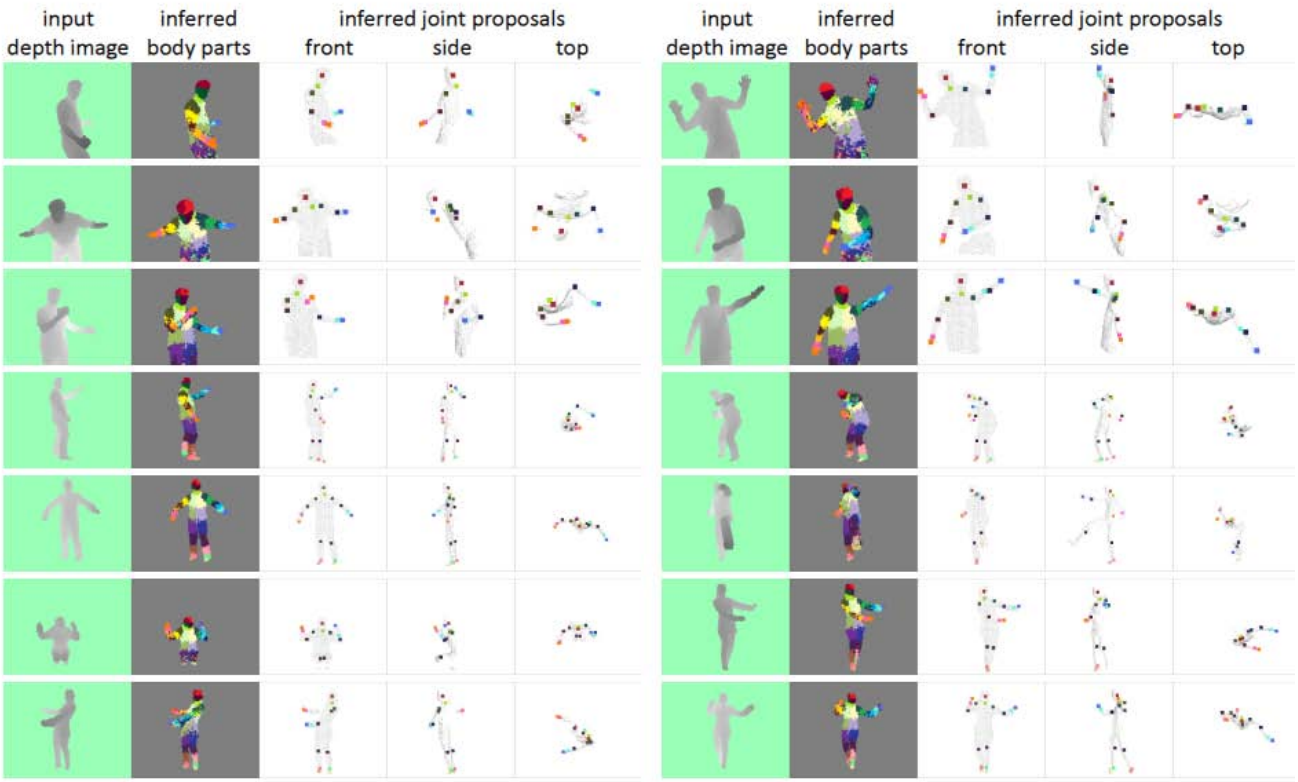
Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theatre area within which a number of visitors are free to move about, said sensors generating sensor signals;	Kinect sensor components A look at the critical parts that make up the Kinect  The Kinect sensor includes the following components: 1. 3-D depth sensors Three-dimensional sensors track your body within the play space. 2. RGB camera An RGB (red, green, blue) camera helps identify you and takes in-game pictures and videos. 3. Multiple microphones An array of microphones along the bottom, front edge of the Kinect sensor are used for speech recognition and chat. 4. Motorized tilt A mechanical drive in the base of the Kinect sensor automatically tilts the sensor head up and down when needed. Why does my sensor move? **Note** Do not manually tilt the sensor. http://support.xbox.com/en-US/kinect/setup-and-playspace/kinect-sensor-components

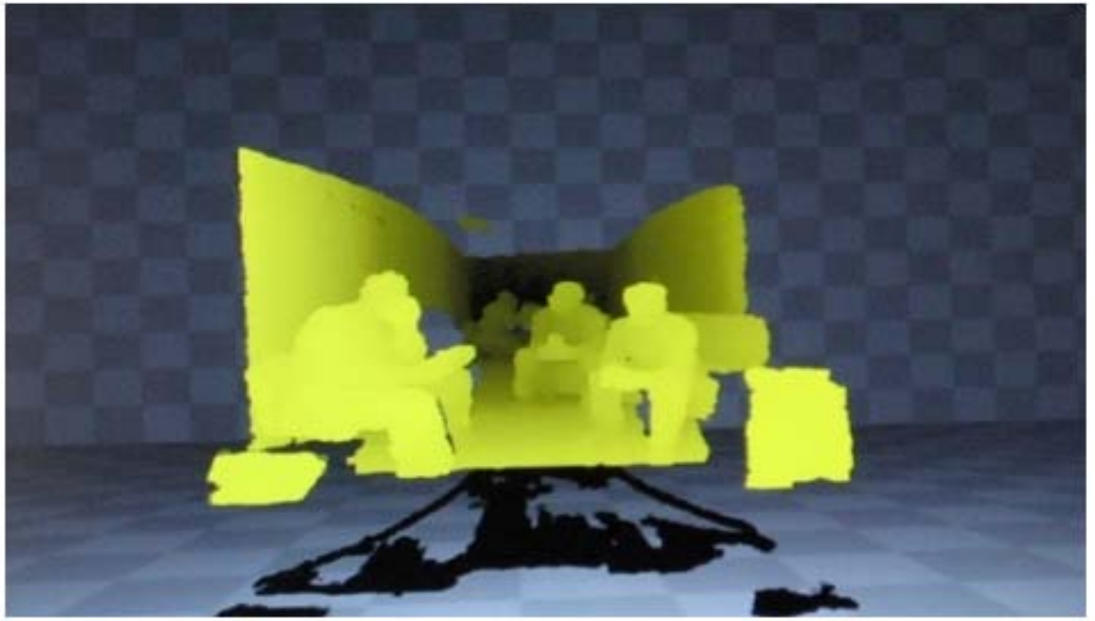
Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theatre area within which a number of visitors are free to move about, said sensors generating sensor signals;	The plurality of sensors detect and sense at least one physical characteristic at a plurality of positions within a theatre area. **How Motion Detection Works in Xbox Kinect** By Tim Carmody ✉ November 3, 2010 | 3:22 pm | Categories: R&D and Inventions, Toys and Games  The prototype for Microsoft's Kinect camera and microphone famously cost $30,000. At midnight Thursday morning, you'll be able to buy it for $150 as an Xbox 360 peripheral. Microsoft is projecting that it will sell 5 million units between now and Christmas. We'll have more details and a review of the system soon, but for now it's worth taking some time to think about how it all works. http://www.wired.com/gadgetlab/2010/11/tonights-release-xbox-kinect-how-does-it-work/all/1

Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theatre area within which a number of visitors are free to move about, said sensors generating sensor signals;	 Screenshot of Body tracking screen for Xbox Kinect

Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products

providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theatre area within which a number of visitors are free to move about, said sensors generating sensor signals;	Contains the data for one skeleton, including overall position, skeleton joint positions, and
	
	C++
	`struct _NUI_SKELETON_DATA {`
	`  NUI_SKELETON_TRACKING_STATE eTrackingState;`
	`  DWORD dwTrackingID;`
	`  DWORD dwEnrollmentIndex;`
	`  DWORD dwUserIndex;`
	`  Vector4 Position;`
	`  Vector4 SkeletonPositions[NUI_SKELETON_POSITION_COUNT];`
	`  NUI_SKELETON_POSITION_TRACKING_STATE`
	`  eSkeletonPositionTrackingState[NUI_SKELETON_POSITION_COUNT];`
	`  DWORD dwQualityFlags;`
	`} NUI_SKELETON_DATA;`
	
	Position — The player's position, as a **Vector4** value.
	
	SkeletonPositions — An array of skeleton joint positions, each of which is represented by a **Vector4** value. The joint positions are indexed by the values in the NUI_SKELETON_POSITION_INDEX enumeration. The **x**, **y**, and **z** components of each skeleton joint position are the coordinates, in meters, from the camera. The **w** component is always unity.
	
	Excerpt from Microsoft developer documentation for interactive Kinect hardware.

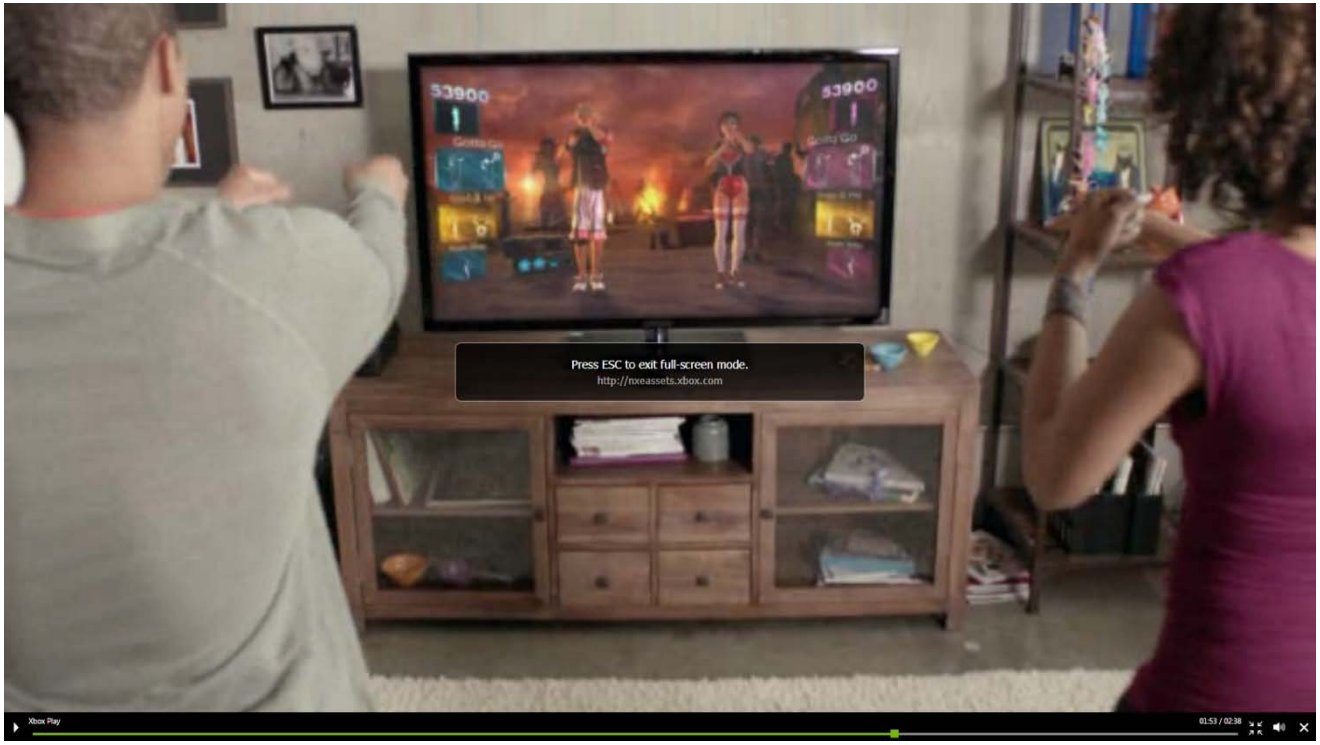
Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theatre area within which a number of visitors are free to move about, said sensors generating sensor signals;	 Real-Time Human Pose Recognition in Parts from Single Depth Images: Supplementary Material, Microsoft Research Cambridge & Xbox Incubation, *available at* http://research.microsoft.com/pubs/145347/SupplementaryMaterial.pdf.

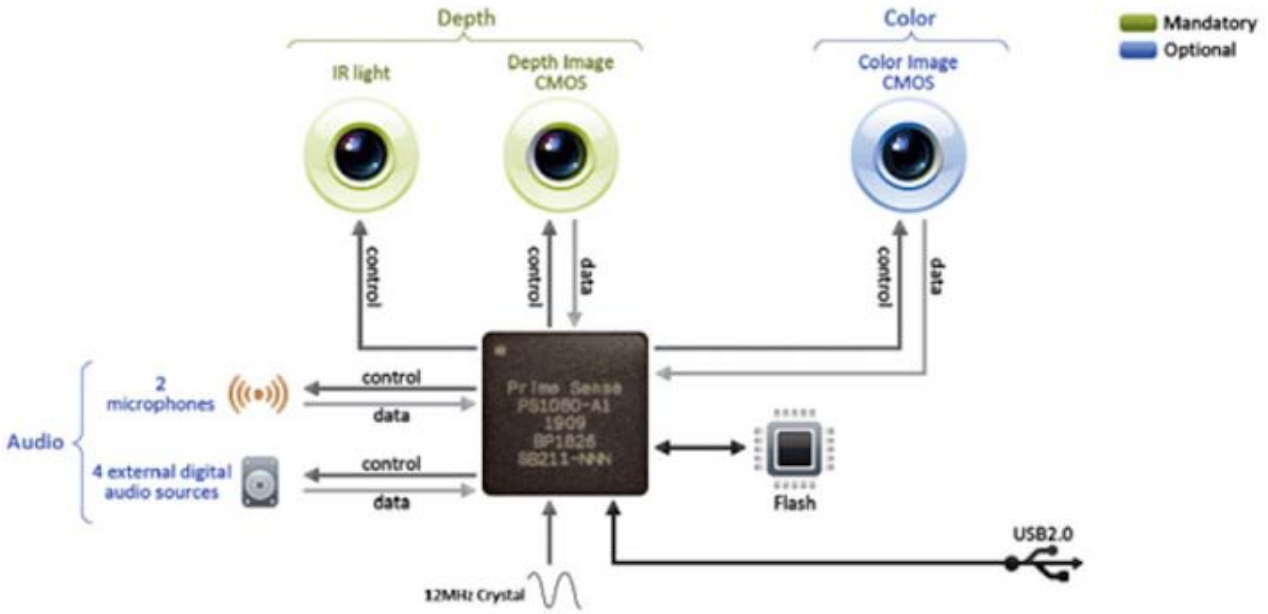
Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theatre area within which a number of visitors are free to move about, said sensors generating sensor signals;	Kinect: The company behind the tech explains how it works 69 by Mike Schramm on Jun 19th 2010 6:30PM  http://www.joystiq.com/2010/06/19/kinect-how-it-works-from-the-company-behind-the-tech/

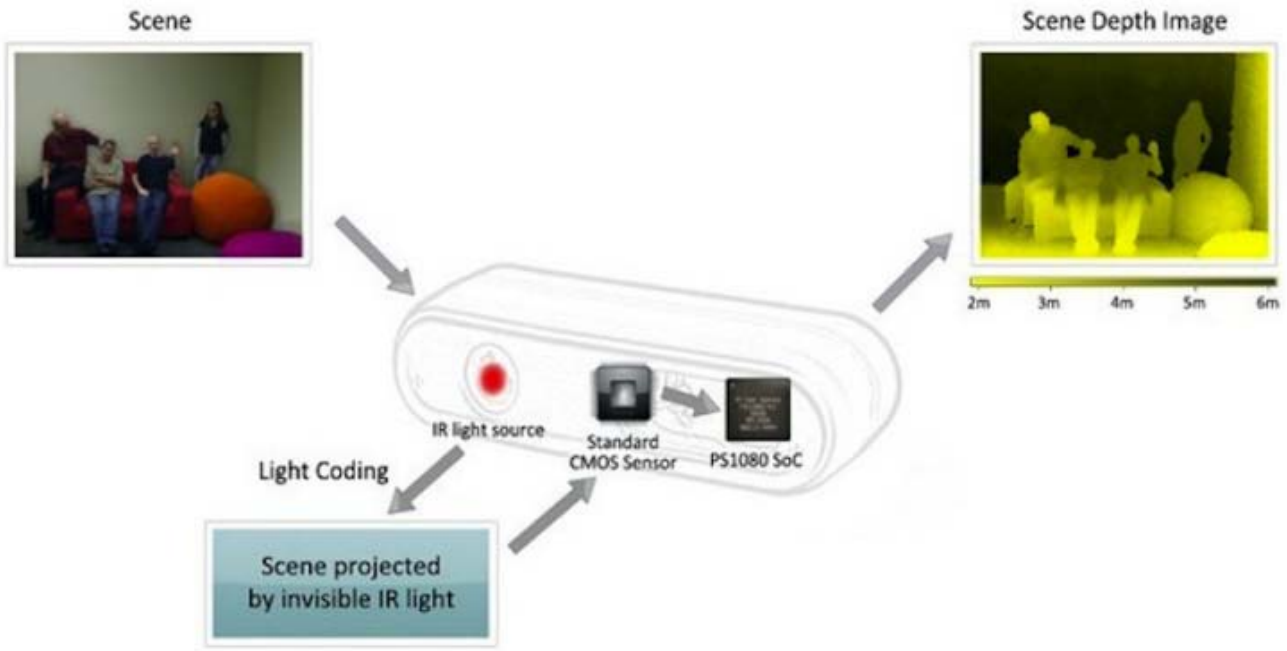
Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theatre area within which a number of visitors are free to move about, said sensors generating sensor signals;	Before PrimeSense's technology, most gestural control systems were based on a "time-of-flight" method -- infrared light (or the equivalent: invisible frequencies of light) were sent out into a 3D space, and then the time and wavelengths of light that returned to the specially-tuned cameras would be able to figure out what the space looked like from that. But PrimeSense's method actually encodes information in light patterns as it goes out, and the deformation of those patterns is what the camera looks for. Once the camera recieves the IR light back, it gets an image similar to the one above -- you can see me sitting with a notepad on the left, and a few other people from PrimeSense around the small room on the right. The computer builds a basic shape of the room it sees through the camera and the people in it, and then the real processing starts. PrimeSense actually developed a chip that sits right in the camera device, and that's where the camera starts deciphering the image. It looks for any shapes that appear to be a human body (a head, torso, and two legs and arms), and then starts calculating things like how those arms and legs are moving, where they can move (your arms probably can't fold backwards at the elbow, for example), and where they'll be in a few microseconds. A lot of this processing is done by Microsoft in its own software as well, and things like interfaces and the Kinect API weren't created by PrimeSense either -- those are both handled on Microsoft's end. "The vision of natural interface is something that was cooked up on Microsoft's side," I was told, "but they were waiting for the kind of technology that would enable it." PrimeSense's system does the basic calculations about what the computer sees as human and how it reports that to the Xbox itself. PrimeSense reps also told me that the camera can "see" any number of people on the screen -- you can fit as many people in that camera as possible, and the computer will see all of them and can even recognize them as human shapes. But it can only run calculations on two people at a time, just because the processing power required to track all of the body's locations and movements is so great (Update: See below). During our testing with the device, a person moving in front of the camera was able to "steal focus," but the computer can also be told through gestures to keep focus on a certain person. http://www.joystiq.com/2010/06/19/kinect-how-it-works-from-the-company-behind-the-tech/

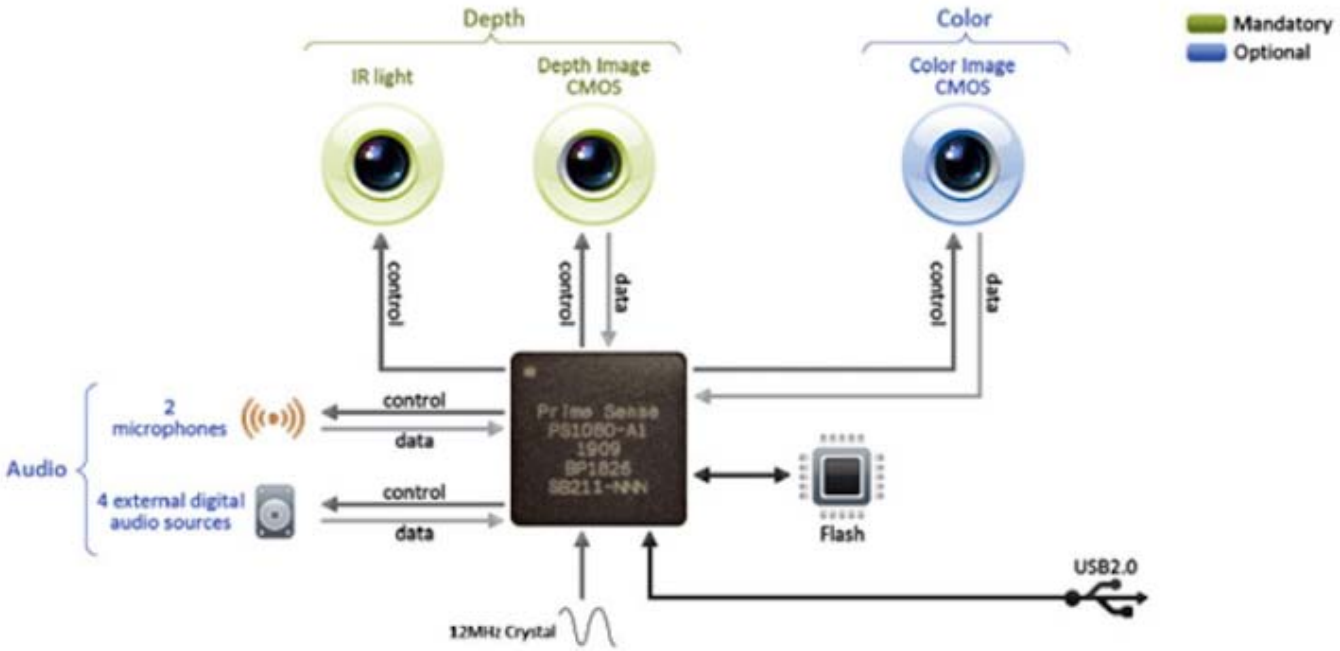
Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
providing a plurality of sensors detecting and sensing at least one physical characteristic at **a plurality of positions within a theatre area within which a number of visitors are free to move about**, said sensors generating sensor signals;	A number of visitors are free to move about the theatre area. For example, the screenshot below and those on the next two slides shows two visitors in the theatre area. *Play space setup*  **Kinect needs to see your entire body** • Clear the area between the sensor and the players. • One player: Stand back 6 feet (1.8 m). • Two players: Stand back 8 feet (2.4 m). • Make sure that the play space is at least 6 feet (1.8 m) wide, and not wider or longer than 12 feet (3.6 m). • Make sure the room has bright, even lighting. http://support.xbox.com/en-US/kinect/setup-and-playspace/getting-started

Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theatre area **within which a number of visitors are free to move about, said sensors generating sensor signals;**	 Screenshot from Kinect video, *available at* http://www.xbox.com/en-US/Kinect?xr=shellnav

Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theatre area **within which a number of visitors are free to move about, said sensors generating sensor signals;**	 Screenshot from Kinect video, *available at* http://www.xbox.com/en-US/Kinect?xr=shellnav

Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theatre area within which a number of visitors are free to move about, **said sensors generating sensor signals;**	As shown below, the sensors generate sensor signals.  http://www.ifixit.com/Teardown/Microsoft-Kinect-Teardown/4066/1

Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
providing a plurality of sensors detecting and sensing at least one physical characteristic at a plurality of positions within a theatre area within which a number of visitors are free to move about, **said sensors generating sensor signals;**	 http://www.ifixit.com/Teardocwn/Microsoft-Kinect-Teardown/4066/1

Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
interpreting said sensor signals to provide at least one physical characteristic signal including position information, wherein said physical characteristic signal provides information on visitor activity and location within said theater area;	The Accused Products interpret the sensor signals to provide at least one physical characteristic signal including position information, wherein the physical characteristic signal provides information on visitor activity and location within the theater area.  http://www.ifixit.com/Teardown/Microsoft-Kinect-Teardown/4066/1

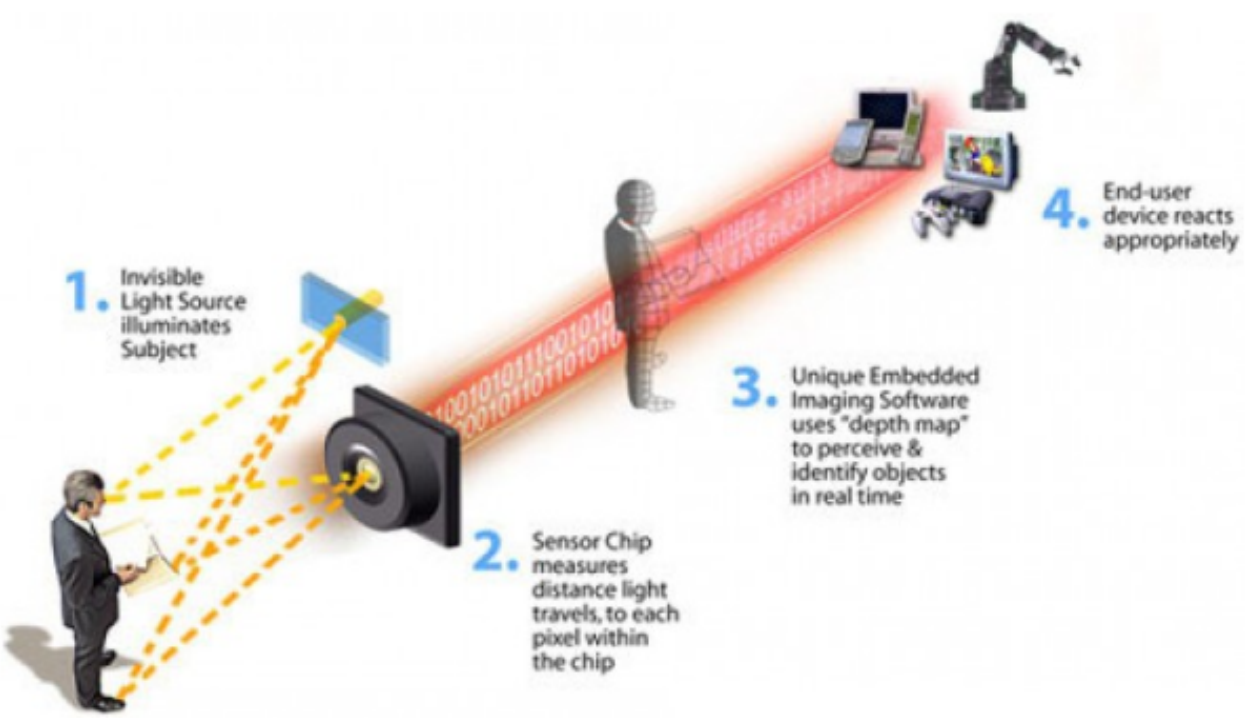
Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
interpreting said sensor signals to provide at least one physical characteristic signal including position information, wherein said physical characteristic signal provides information on visitor activity and location within said theater area;	Before PrimeSense's technology, most gestural control systems were based on a "time-of-flight" method -- infrared light (or the equivalent: invisible frequencies of light) were sent out into a 3D space, and then the time and wavelengths of light that returned to the specially-tuned cameras would be able to figure out what the space looked like from that. But PrimeSense's method actually encodes information in light patterns as it goes out, and the deformation of those patterns is what the camera looks for. Once the camera recieves the IR light back, it gets an image similar to the one above -- you can see me sitting with a notepad on the left, and a few other people from PrimeSense around the small room on the right. The computer builds a basic shape of the room it sees through the camera and the people in it, and then the real processing starts. PrimeSense actually developed a chip that sits right in the camera device, and that's where the camera starts deciphering the image. It looks for any shapes that appear to be a human body (a head, torso, and two legs and arms), and then starts calculating things like how those arms and legs are moving, where they can move (your arms probably can't fold backwards at the elbow, for example), and where they'll be in a few microseconds. A lot of this processing is done by Microsoft in its own software as well, and things like interfaces and the Kinect API weren't created by PrimeSense either -- those are both handled on Microsoft's end. "The vision of natural interface is something that was cooked up on Microsoft's side," I was told, "but they were waiting for the kind of technology that would enable it." PrimeSense's system does the basic calculations about what the computer sees as human and how it reports that to the Xbox itself. PrimeSense reps also told me that the camera can "see" any number of people on the screen -- you can fit as many people in that camera as possible, and the computer will see all of them and can even recognize them as human shapes. But it can only run calculations on two people at a time, just because the processing power required to track all of the body's locations and movements is so great (Update: See below). During our testing with the device, a person moving in front of the camera was able to "steal focus," but the computer can also be told through gestures to keep focus on a certain person. http://www.joystiq.com/2010/06/19/kinect-how-it-works-from-the-company-behind-the-tech/

Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products

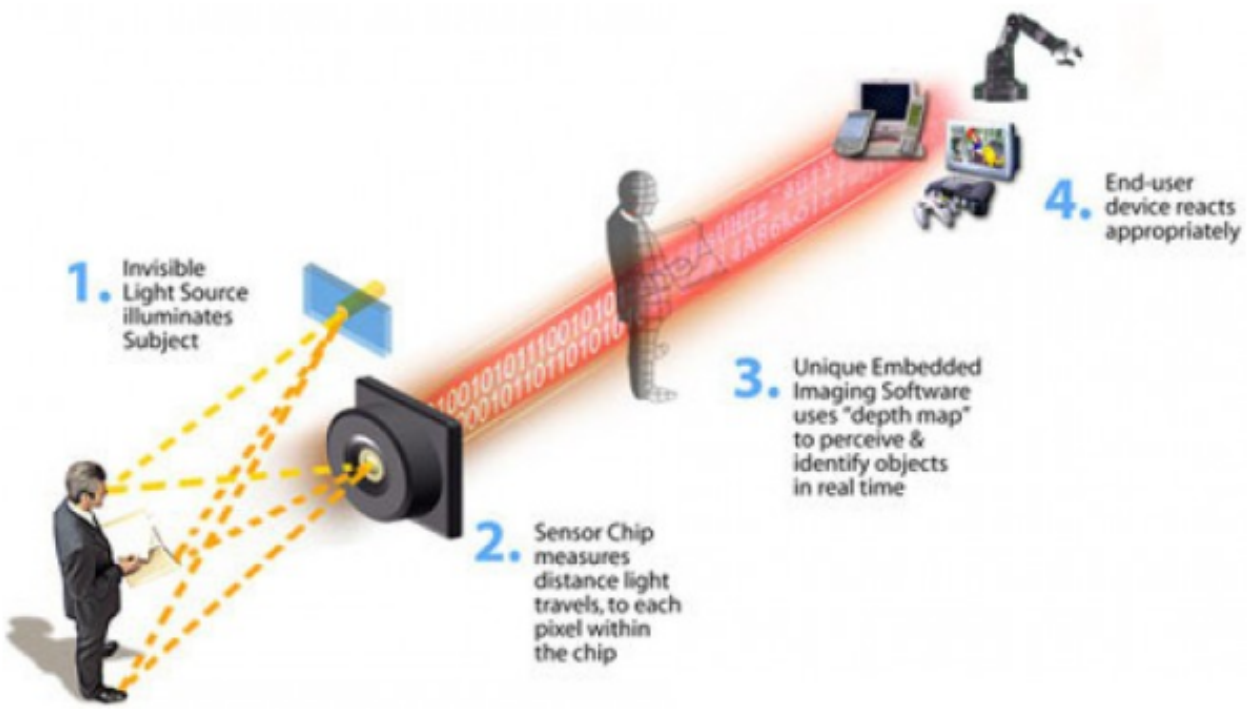
interpreting said sensor signals to provide at least one physical characteristic signal including position information, wherein said physical characteristic signal provides information on visitor activity and location within said theater area;	Contains the data for one skeleton, including overall position, skeleton joint positions, and
	
	C++
	`struct _NUI_SKELETON_DATA {`
	`  NUI_SKELETON_TRACKING_STATE eTrackingState;`
	`  DWORD dwTrackingID;`
	`  DWORD dwEnrollmentIndex;`
	`  DWORD dwUserIndex;`
	`  Vector4 Position;`
	`  Vector4 SkeletonPositions[NUI_SKELETON_POSITION_COUNT];`
	`  NUI_SKELETON_POSITION_TRACKING_STATE`
	`  eSkeletonPositionTrackingState[NUI_SKELETON_POSITION_COUNT];`
	`  DWORD dwQualityFlags;`
	`} NUI_SKELETON_DATA;`
	
	Position — The player's position, as a **Vector4** value.
	
	SkeletonPositions — An array of skeleton joint positions, each of which is represented by a **Vector4** value. The joint positions are indexed by the values in the NUI_SKELETON_POSITION_INDEX enumeration. The **x**, **y**, and **z** components of each skeleton joint position are the coordinates, in meters, from the camera. The **w** component is always unity.
	
	Excerpt from Microsoft developer documentation for interactive Kinect hardware.

Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
providing a behavior model for at least one virtual actor;	Nearly every Microsoft Kinect game, including those manufactured, designed, developed and/or published by Microsoft and those manufactured, designed, developed and/or published by a third-party, provides a behavior model for at least one virtual actor. Examples of such games include Kinectimals, Rise of Nightmares, Fantastic Pets, Blackwater, Just Dance 3, Star Wars, Ghost Recon Future Soldier, etc. For example, shown below are screenshots from the Rise of Nightmares and Kinectimals games showing that they provide a behavior model for at least one virtual actor.

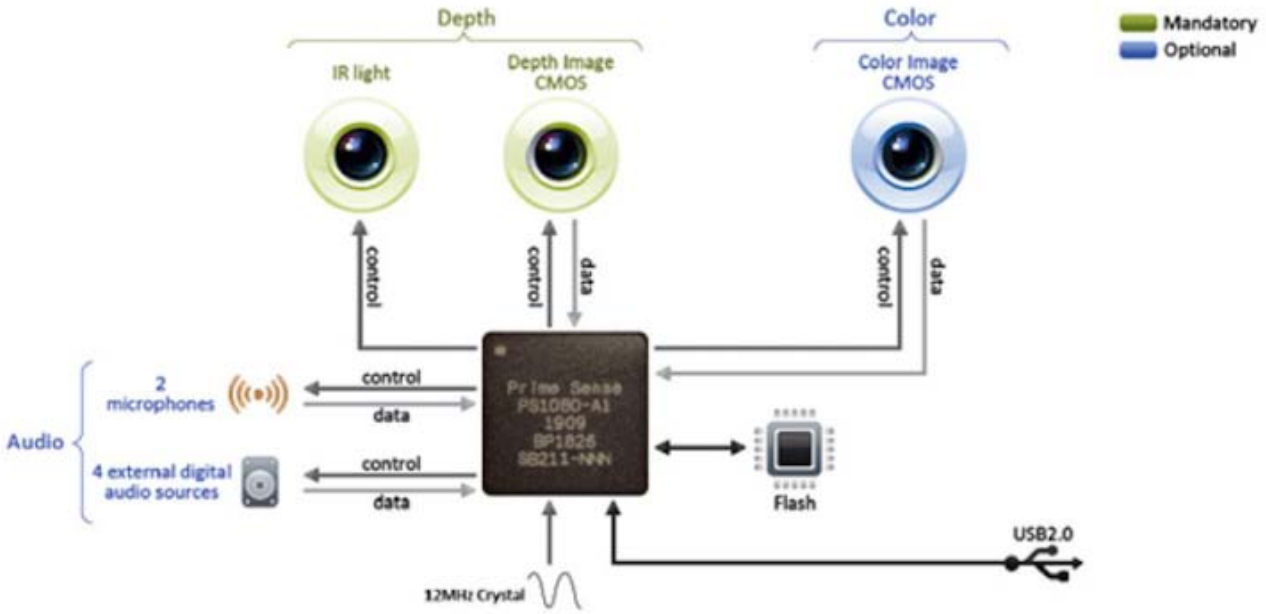
Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
analyzing said at least one physical characteristic signal, a change over time of said physical characteristic signal and said behavior model for said at least one virtual actor to generate a behavior vector of said at least one virtual actor using said position information and said at least one physical characteristic signal, said behavior vector being generated in real-time;	The Accused Products analyze at least one physical characteristic signal (e.g., movement of arm), a change over time of the physical characteristic signal (e.g., movement of arm over time), and the behavior model for the at least one virtual actor (see prior slide) to generate a behavior vector using the position information and the physical characteristic signal (e.g., the tiger reacts to being petted and/or reacts to and plays with the toy in the user's hand). The behavior vector is generated in real-time.  

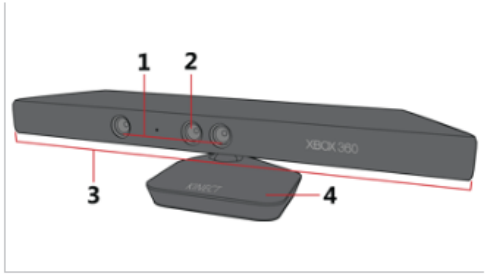
Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
analyzing said at least one physical characteristic signal, a change over time of said physical characteristic signal and said behavior model for said at least one virtual actor to generate a behavior vector of said at least one virtual actor using said position information and said at least one physical characteristic signal, said behavior vector being generated in real-time;	**How Motion Detection Works in Xbox Kinect** By Tim Carmody ✉ November 3, 2010 | 3:22 pm | Categories: R&D and Inventions, Toys and Games  The prototype for Microsoft's Kinect camera and microphone famously cost $30,000. At midnight Thursday morning, you'll be able to buy it for $150 as an Xbox 360 peripheral. Microsoft is projecting that it will sell 5 million units between now and Christmas. We'll have more details and a review of the system soon, but for now it's worth taking some time to think about how it all works. http://www.wired.com/gadgetlab/2010/11/tonights-release-xbox-kinect-how-does-it-work/all/1

Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
whereby a virtual actor reacts and interacts, in real-time, with visitors depending on the visitors' actions and evolution of said actions.	As a result, a virtual actor, such as the tiger depicted below, reacts and interacts, in real-time, with visitors depending on the visitors' actions and evolution of said actions.  

Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
whereby a virtual actor reacts and interacts, in real-time, with visitors depending on the visitors' actions and evolution of said actions.	**How Motion Detection Works in Xbox Kinect** By Tim Carmody ✉ November 3, 2010 | 3:22 pm | Categories: R&D and Inventions, Toys and Games  The prototype for Microsoft's Kinect camera and microphone famously cost $30,000. At midnight Thursday morning, you'll be able to buy it for $150 as an Xbox 360 peripheral. Microsoft is projecting that it will sell 5 million units between now and Christmas. We'll have more details and a review of the system soon, but for now it's worth taking some time to think about how it all works. http://www.wired.com/gadgetlab/2010/11/tonights-release-xbox-kinect-how-does-it-work/all/1

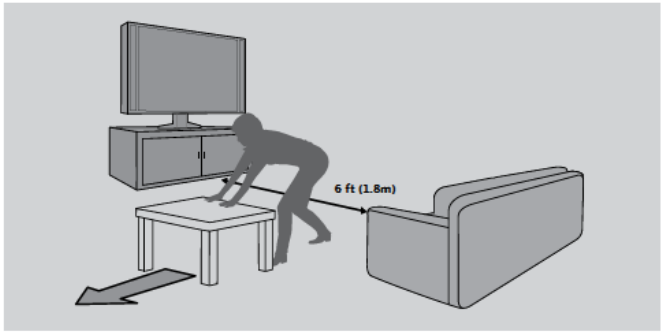
Claim 1 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
whereby a virtual actor reacts and interacts, in real-time, **with visitors depending on the visitors' actions and evolution of said actions.**	What's the brain thinking as it watches you jump around, swinging imaginary bats or head-butting imaginary soccer balls? The above screenshot shows what's going on in it's head—the different images represent different stages of Natal's computational process. Here's the step-by-step: **Step 1**: As you stand in front of the camera, it judges the distance to different points on your body. In the image on the far left, the dots show what it sees, a so-called "point cloud" representing a 3-D surface; a skeleton drawn there is simply a rudimentary guess. (The image on the top shows the image perceived by the color camera, which can be used like a webcam.) **Step 2**: Then the brain guesses which parts of your body are which. It does this based on all of its experience with body poses—the experience described above. Depending on how similar your pose is to things it's seen before, Natal can be more or less confident of its guesses. In the color-coded person above [bottom center], the darkness, lightness, and size of different squares represent how certain Natal is that it knows what body-part that area belongs to. (For example, the three large red squares indicate that it's highly probable that those parts are "left shoulder," "left elbow" and "left knee"; as the pixels become smaller and muddier in color, such as the grayish pixels around the hands, that's an indication that Natal is hedging its bets and isn't very sure of its identity.) **Step 3**: Then, based on the probabilities assigned to different areas, Natal comes up with all possible skeletons that could fit with those body parts. (This step isn't shown in the image above, but it looks similar to the stick-figure drawn on the left, except there are dozens of possible skeletons overlaid on each other.) It ultimately settles on the most probable one. Its reasoning here is partly based on its experience, and partly on more formal kinematics models that programmers added in. **Step 4**: Once Natal has determined it has enough certainty about enough body parts to pick the most probable skeletal structure, it outputs that shape to a simplified 3D avatar [image at right]. That's the final skeleton that will be skinned with clothes, hair, and other features and shown in the game. **Step 5**: Then it does this all over again—30 times a second! As you move, the brain generates all possible skeletal structures at each frame, eventually deciding on, and outputting, the one that is most probable. This thought process takes just a few milliseconds, so there's plenty of time for the Xbox to take the info and use it to control the game. http://www.popsci.com/gadgets/article/2010-01/exclusive-inside-microsofts-project-natal

Claim 2	Application of U.S. Patent No. 6,507,353 to the Accused Products
2. A method as claimed in claim 1, wherein **said at least one physical characteristic is one of position, sound and movement.**	The at least one physical characteristic is one of position, sound and movement.  http://www.ifixit.com/Teardown/Microsoft-Kinect-Teardown/4066/1

Claim 2 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
2. A method as claimed in claim 1, wherein **said at least one physical characteristic is one of position, sound and movement.**	Kinect sensor components A look at the critical parts that make up the Kinect  The Kinect sensor includes the following components: 1. 3-D depth sensors Three-dimensional sensors track your body within the play space. 2. RGB camera An RGB (red, green, blue) camera helps identify you and takes in-game pictures and videos. 3. Multiple microphones An array of microphones along the bottom, front edge of the Kinect sensor are used for speech recognition and chat. 4. Motorized tilt A mechanical drive in the base of the Kinect sensor automatically tilts the sensor head up and down when needed. Why does my sensor move? **Note** Do not manually tilt the sensor. http://support.xbox.com/en-US/kinect/setup-and-playspace/kinect-sensor-components

Claim 3	Application of U.S. Patent No. 6,507,353 to the Accused Products
3. A method as claimed in claim 1, wherein **said plurality of positions is at least four positions.**	The plurality of positions is at least four positions.

ADEQUATE SPACE FOR PLAYING



The Kinect sensor needs to be able to see you, and you need room to move. The sensor can see you when you play approximately 6 feet (2 meters) from the sensor. For two people, you should play approximately 8 feet (2.5 meters) from the sensor.

Play space will vary based on your sensor placement and other factors. See your game's instructions for more information about whether it requires only part of the sensor play space.

⚠ WARNING

Make sure you have enough space to move freely while playing

Gameplay with your Kinect sensor may require varying amounts of movement. Make sure you won't hit, run into, or trip over other players, bystanders, pets, furniture, or other objects when playing. If you will be standing and/or moving during gameplay, you will also need good footing.

Before playing:

- Look in all directions (right, left, forward, backward, down, and up) for things you might hit or trip over.
- Make sure your play space is far enough away from windows, walls, stairs, etc.
- Make sure there is nothing you might trip on—toys, furniture, or loose rugs, for example. Also, be aware of children and pets in the area. If necessary, move objects or people out of the play space.
- Don't forget to look up. Be aware of light fixtures, fans, and other objects overhead when assessing the play space.

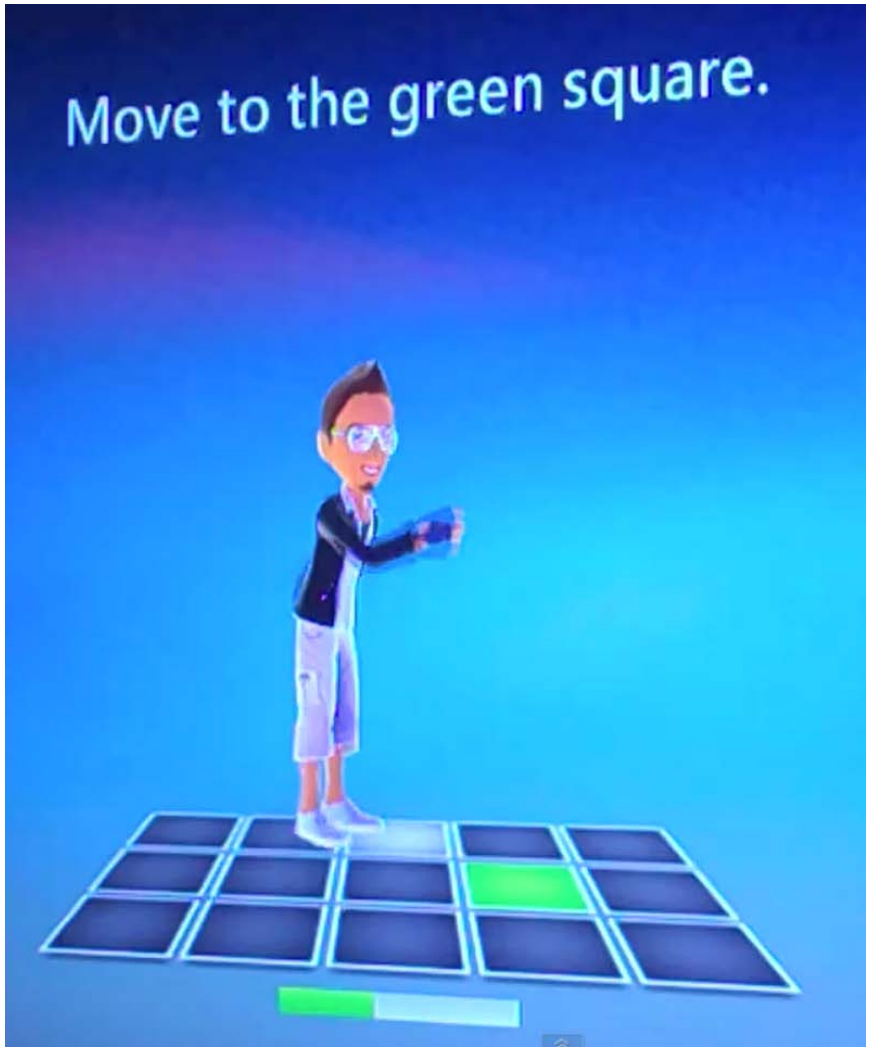
While playing:

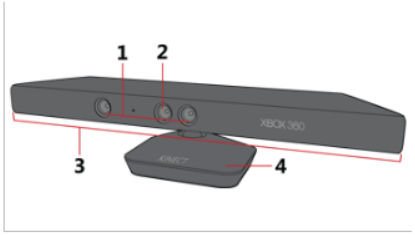
- Stay far enough away from the television to avoid contact.
- Keep enough distance from other players, bystanders, and pets. This distance may vary between games, so take account of how you are playing when determining how far away you need to be.
- Stay alert for objects or people you might hit or trip on. People and objects can move into the area during gameplay, so always be alert to your surroundings.

Make sure you always have good footing while playing:

- Play on a level floor with enough traction for game activities.
- Make sure you have appropriate footwear for gaming (no high heels, flip flops, etc.) or are barefoot, if appropriate.

Excerpt from Kinect manual.

Claim 3 (cont'd)	Application of U.S. Patent No. 6,507,353 to the Accused Products
3. A method as claimed in claim 1, wherein **said plurality of positions is at least four positions.**	 Screenshot from Kinect asking user to move to the green square.

Claim 5	Application of U.S. Patent No. 6,507,353 to the Accused Products
5. A method as claimed in claim 1, wherein **said sensors are at least one of motion detectors, tactile plates, microphones, cameras, body language detectors.**	The sensors are at least one of motion detectors, tactile plates, microphones, cameras, body language detectors. Kinect sensor components A look at the critical parts that make up the Kinect  The Kinect sensor includes the following components: 1. 3-D depth sensors Three-dimensional sensors track your body within the play space. 2. RGB camera An RGB (red, green, blue) camera helps identify you and takes in-game pictures and videos. 3. Multiple microphones An array of microphones along the bottom, front edge of the Kinect sensor are used for speech recognition and chat. 4. Motorized tilt A mechanical drive in the base of the Kinect sensor automatically tilts the sensor head up and down when needed. Why does my sensor move? **Note** Do not manually tilt the sensor. http://support.xbox.com/en-US/kinect/setup-and-playspace/kinect-sensor-components

Claim 7	Application of U.S. Patent No. 6,507,353 to the Accused Products
7. A method as claimed in claim 1, further comprising a step of **providing a virtual environment database including information on all actors in said interactive theater.**	The Accused Products further provide a virtual environment database including information on all actors in the interactive theater. For example, the Accused Products contain a virtual environment database that includes information on all actors in Rise of Nightmares, Kinectimals, etc. So, as an example, the Accused Products would include a virtual environment database that has information pertaining to the zombie virtual actors depicted below.  Screenshot from Rise of Nightmares

Claim 8	Application of U.S. Patent No. 6,507,353 to the Accused Products
8. A method as claimed in claim 7, further comprising a step of **providing a virtual environment stimulus generator, wherein said virtual environment stimulus generator analyzes said virtual environment database and generates a virtual environment stimulus.**	The Accused Products further provide a virtual environment stimulus generator. The virtual environment stimulus generator analyzes the virtual environment database and generates a virtual environment stimulus, such as the creation of a new virtual actor. For example, in the screenshot from Rise of Nightmares shown below, in response to a user moving forward and creating noise the virtual environment stimulus generator in the Accused Products creates a new virtual actor (zombie shown below) that falls from above to attack the user's player. 

Claim 9	Application of U.S. Patent No. 6,507,353 to the Accused Products
9. A method as claimed in claim 8, wherein **said virtual environment stimulus is a new actor creation signal.**	The virtual environment stimulus can be a new actor creation signal. For example, in the screenshot from Rise of Nightmares shown below, in response to a user moving forward and creating noise the virtual environment stimulus generator in the Accused Products creates a new virtual actor (zombie shown below) that falls from above to attack the user's player. 

Claim 22	Application of U.S. Patent No. 6,507,353 to the Accused Products
22. A method as claimed in claim 1, wherein said behavior model comprises psychological factors and wherein said psychological factors are at least one of age factor, hunger, thirst, sleepiness, attention span and disability.	The behavior model in the Accused Products, or at a minimum in the Accused Products that include Kinectimals and Fantastic Pets, includes psychological factors that are at least one of age, hunger, thirst, sleepiness, attention span and disability.  *Care and Feeding* Cubs love to roll around in grass and sand, so you'll want to brush their fur to clean them. They always appreciate a cool drink or a tasty treat, too. You can find everything you need in your Toy Box. For example, hover over Food for treats or over Care Items to select a water bowl or brushes. For even more fun, try hand-feeding your cub! Just hold the food right in front of it. Excerpt from Kinectimals manual. **PET NEEDS** While you're in neutral play, your pet can suggest things it would like or activities to play. For instance, your pet might think about the Food Time activity if it's hungry, or the Take Aim activity if it fancies chasing a ball about like a mad thing. When your pet thinks of something it would like, you'll see a 'thought bubble' appear with the activity floating in it. Simply hold your hand over that thought bubble for a couple of seconds and the activity will start. If you'd rather not do that activity, either waft the thought bubble away or just ignore it.  Excerpt from Fantastic Pets manual.